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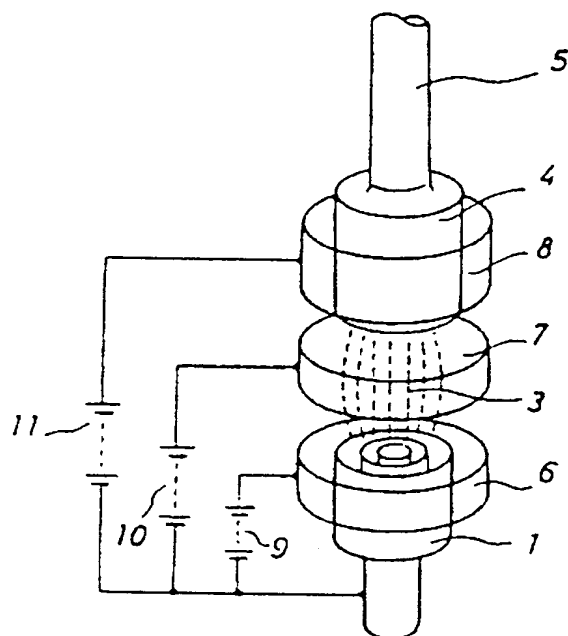
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TITLE : PRODUCTION OF OPTICAL FIBER
 PREFORM



ABSTRACT : PURPOSE: To improve the deposition efficiency of porous glass material in the production of an optical fiber preform by axial deposition process by placing an electrostatic electrode between an oxyhydrogen burner and a target rod and converging glass soot between both members.

CONSTITUTION: A glass raw material is supplied to the center nozzle of an oxyhydrogen burner 1 and is hydrolyzed by the flame of oxygen and hydrogen supplied to an outer nozzle. The produced quartz glass soot 3 is deposited on the bottom of a quartz target rod 5 placed above the burner to effect the growth of a porous quartz glass 4. In the above process, cylindrical electrostatic electrodes 6, 7, 8 are placed between the oxyhydrogen burner 1 and the quartz target rod 5 and electric potentials are applied between the burner 1 and the electrodes 6, 7, 8 with DC power sources 9, 11, 12 to increase the potential in the order. An electrical field to converge the quartz glass soot 3 on the target rod 5 is formed by this process. The deposition efficiency of the porous quartz glass 4 can be improved and the yield can be remarkably increased by this process.

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